
**THE MAGPIE MOTH (*ABRAXAS GROSSULARIATA* L.);
A CHANGE OF STATUS?**

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IN 1874 Edward Newman wrote that this moth was all too common in all our gardens both in England and Ireland where its larval foodplants were gooseberry and blackcurrant, while in woods and hedges it was found on blackthorn, and this he believed was its natural pabulum. Some thirty years later C. Barrett (1901) described the moth as being plentiful everywhere in gardens and lanes, also common in and around woods, and abundant in fens throughout England, Wales and Ireland; in Scotland more restricted to gardens, usually abundant, but sometimes local. He also mentions that in some years the larvae in gardens reach plague proportions, devouring the leaves of every plant including apple, hollyhock and cabbage, and he adds that in city gardens and elsewhere *Euonymus japonicus* is a favourite foodplant.

I became acquainted with the species at Bexley, Kent, from 1922 until 1927; there it was extremely common, especially in gardens, the caterpillars being found on currant and gooseberry bushes, less commonly on plum, but often in prodigious numbers on *E. japonicus*, usually on bushes growing beside walls or fences, where their favourite pupation sites were beneath the overhanging boards of shiplap or underneath window sills. I have noticed that wherever *E. japonicus* is the larval foodplant, the larvae restrict themselves to certain bushes, sometimes for many years, yet never colonise others in the vicinity. Thus for many years while residing by Dartford Heath a *Euonymus* between the front bay windows of the house maintained a colony of *grossulariata*, yet a second bush beside the fence at the side of the property was never colonised. At Bexleyheath a couple of small bushes beside a shack used as a classroom had a flourishing colony for over a decade although a large clump of *Euonymus* on the side of the main building remained free throughout the period. On numerous occasions I have noticed freshly emerged females pairing within or close by the bush upon which they fed as larvae, and subsequently lay their eggs in the immediate vicinity, suggesting that females disperse with reluctance, and the absence of colonies on nearby bushes is due to this mode of behaviour rather than some differences in the aspect or character of other bushes. Although the Dartford Heath colony mentioned above became heavily parasitised in later years, I suspect that this has not been the main factor causing decline in the species generally. In *Ent. Rec.* 77: 49 I noted the defoliation of flowering currant (*Ribes sanguineum*) in 1963 at Bexleyheath, but this was certainly by larvae which walked from their *Euonymus* home, not the result of moths laying eggs on the *Ribes*, for the caterpillars were frequently observed walking across the soil; this would seem to have been the case with the swarms of larvae mentioned by Barrett in view of the unusual nature and variety of the plants listed.

It was about 1980 that I became aware that *grossulariata* had seriously declined in numbers in this district; *Euonymus* bushes which had supported the larvae for many years were now quite free of them and in more recent years I have found the currant and gooseberry bushes of gardens and allotments here devoid of magpie larvae, although one continues to find them in the Kent countryside, in small numbers, on hedgerow blackthorn and less frequently on hawthorn, spindle (*Euonymus europaeus*) and buckthorn (*Rhamnus catharticus*).

Perhaps a contributory reason for a decline of the *E. japonicus* feeding *grossulariata* has resulted from the several severe winters, commencing with 1946/7, when frost killed many bushes, and often these were replaced by more desirable shrubs. In towns of the South-east *E. japonicus* together with *Ligustrum ovalifolium*, and to a lesser extent holly were utilised widely as hedges alongside fences and walls, nevertheless *E. japonicus* hedges are still a feature of the older, central parts of towns in S.E. England. Regarding my observation concerning the favouring of these bushes growing beside fences and walls, it is interesting to note that Edward Newman (1874) had observed that they also particularly favoured currant and gooseberry bushes trained against a wall, a practice rarely employed today.

The subject of larval reaction to a change of diet has on several occasions been the subject of notes in this journal, and regarding *grossulariata* has produced conflicting evidence. Thus the transfer from *E. japonicus* to *Ribes sanguineum*, an unusual foodplant, noted above occurred naturally, and the latter was accepted; J. Heslop-Harrison (*Ent. Rec.* 69: 48) moved larvae fed on gooseberry to willow successfully, but larvae he collected from *Calluna* would not accept the closely related *Erica cinerea*, another normal foodplant in the Hebrides, while *Calluna* was refused by newly-hatched larvae from a gooseberry feeding colony.

Many species of lepidoptera pass through phases of relative scarcity, or extreme abundance, either locally or upon a wide scale; however this species' decline in N.W. Kent has some unusual features:

- (a) It was a most abundant species in N.W. Kent and over much of England, Wales and Ireland.
- (b) Its scarcity has affected the urban population to a far greater extent than the rural one in this region.
- (c) Its present scarcity here has extended over at least a decade.
- (d) It appears to have deserted *E. japonicus* as a larval foodplant, formerly often its main one in urban areas, while gooseberry and currant are also neglected in towns of this region.

Chalmers-Hunt (1981) gives a picture for Kent in general similar to that which I have portrayed for the north-west of the county before the most recent decline of the species, stressing that in towns *E. japonicus* is the main foodplant, and in the countryside blackthorn; other foodplants are

noted, although elm (*Ulmus procera*) upon which I have found the larvae at Gravesend and Higham is omitted. He suggests that the species was commoner in Kent in the last century, changing “generally abundant” as given in the V.C.H. (1908) to “frequent”, this assessment being based upon records up to about 1980.

This is the age of check lists and dot maps and the remarkable dearth of “County Lepidoptera” unfortunately renders difficult or impossible comparison with other parts of Britain. However, some corroboration appears in L. & K. Evans (1973) in which it is stated that although the moth was widespread and frequent in N.E. Surrey after 1950, there is no record of abundance, while the only larval foodplants mentioned are blackthorn, plum and *Rhamnus catharticus* — i.e. no mention of *E. japonicus*, currant or gooseberry! B. Goater (1974) comments that Fassnidge’s estimate for Hampshire “common everywhere” is an over-simplification, and that *grossulariata* is most common within a mile or two of the coast along hedgerows where the larvae feed on hawthorn or blackthorn, but in gardens, although the caterpillars are sometimes a nuisance on *E. japonica*, they are seldom, if ever, a nuisance on fruit bushes nowadays. In Essex according to J. Firmin et al. (1975) the species had similarly declined in numbers from the time of the V.C.H. (1903), when apparently it abounded among currant and gooseberry bushes, and around blackthorn; presumably it did not do so in the 1960s and 1970s. There appears to be evidence of decline in numbers in Ireland, for E. Baynes (1964) describes the moth as being very common and distributed all over Ireland, although no detail is presented, nor is there mention of larval foodplants. In numerous visits to Ireland nowhere have I found the insect really common. Searching and beating for larvae in the Burren of County Clare have revealed a few on hazel and hawthorn, but similar procedures along hedgerows in counties Tyrone, Fermanagh and Cavan at the appropriate time has yielded none, nor much else either. J. Bradley and E. Pelham-Clinton (1967) summarising a series of visits to the Burren state that they found *grossulariata* widely distributed, but not very common, larvae being found on *Corylus*, *Prunus* and *Rhamnus*, and with no records of imagines.

The position regarding this insect in Scotland can be gleaned only by reference to journals such as this; it is largely passed over in the textbooks from Edward Newman to Skinner; but it would appear that the species is very rare or absent from many areas, and the larval foodplant preferences appear somewhat unusual. Searching and beating currant and gooseberry bushes in the Highlands on my numerous visits have never yielded the larvae, nor have I noticed them on heather there. Skinner (1984) notes that in the Hebrides the larvae feed on this plant, but in fact they do so on the Mainland also according to Harper (*Ent. Rec.* 70: 91), who also states that the moth is exceedingly local and in limited numbers in northern Scotland.

Palmer (*Ent. Rec.* **87**: 222) notes it as local and common on *Ribes* in Aberdeen, although it was described as being abundant in gardens there in the late nineteenth century. Harper and Langmaid (*Ent. Rec.* **87**: 139) found bog myrtle (*Myrica gale*), *Salix aurita*, *S. atrocineraea*, *Sedum roseum* and hazel were larval foodplants in the Hebrides. For Scotland I think it can be concluded that the distribution and life history of *grossulariata* are imperfectly known; Palmer's comment does point to a decline in one urban population compared with the last century which is in accordance with that in England.

The evidence points to a perhaps steady decline in this moth during the first half of this century in many parts of the British Isles, and especially in urban areas in the later years. However in N.W. Kent there appears to have been a further decline affecting the urban population during the past decade, accompanied by desertion of *Euonymus japonicus*, and perhaps to a considerable extent the soft fruit bushes of gardens and allotments. I suspect that this more recent phase is not confined to N.W. Kent. Are there still flourishing colonies of *grossulariata* on *E. japonicus* within the London area, and elsewhere in urban S.E. England? To what extent are the larvae still found on the soft fruit bushes in these regions?

References

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New records for British ants.

Myrmica specioides Bondroit, 1918, first recorded for Britain as the synonymous *M. puerilis* Staercke, 1942 (Collingwood, 1962) disappeared from its first recorded site in a gravel bank just north of Deal through sea erosion and human trampling. The species probably still occurs elsewhere along the Kent coast since the first specimen was actually taken at Herne Bay in 1958 by J.C. Felton and both Felton and I subsequently found it on a bank at Seasalter (Felton, 1963). It is a pleasure to record that this uncommon British species was found on Bawdsey Quay on 1.x.90 nesting in an east facing sandy bank backed by shrubs above the roadway v.c.25 Grid ref. TM3338. Except in North Europe, this is not a coastal species and